

WHAT IS CLAIMED IS:

1. A radiation-modified poly(tetrafluoroethylene) resin feed the melting temperature of which has been shifted toward the lower end without changing the quantities of heat of fusion and crystallization.
2. The radiation-modified poly(tetrafluoroethylene) resin feed according to claim 1, wherein a molding prepared from said resin feed is the same as a molding from an unirradiated resin feed not only in the melting temperature and the quantity of heat of fusion but also in the crystallization temperature and the quantity of heat of crystallization.
3. A molding resin feed composition comprising the radiation-modified poly(tetrafluoroethylene) resin feed according to claim 1 and an unirradiated powder of poly(tetrafluoroethylene) resin or a radiation-crosslinked poly(tetrafluoroethylene) resin.
4. A process for producing a radiation-modified poly(tetrafluoroethylene) resin feed by treating an unsintered poly(tetrafluoroethylene) resin feed with an ionizing radiation in an absorbed dose of no more than 1,000 Gy at room temperature in air so that only the melting temperature of the resin feed is shifted toward the lower end without changing the quantities of heat of fusion and crystallization.
5. The process according to claim 4, wherein the ionizing radiation is applied at a temperature near ordinary or room temperature.

6. The process according to claim 4 or 5, wherein the ionizing radiation is selected from electron beams, x-rays, γ -rays, neutron beams and high-energy ions which are used either independently or in admixture.

7. The process according to any one of claims 4 - 6, wherein the poly(tetrafluoroethylene) resin feed is in powder form.

8. The process according to any one of claims 4 - 7, wherein the poly(tetrafluoroethylene) resin feed is a dried powder of poly(tetrafluoroethylene) resin obtained by emulsion polymerization or suspension polymerization, which is optionally granulated or dispersed uniformly in solvents or wetted with solvents.